UNDERSTANDING ACCURACY

EPDs are designed to change so that we can continually include the new information that is collected as more progeny are born. Like the weather, the more information you have about past performance, the easier it is to try to get a picture of future performance. To evaluate how good a predictor the EPD will be, we assign it an accuracy value. :

Again, it is important to stress that an EPD is simply a prediction of how the offspring of a breeding program may perform. Think of accuracy as the tool that helps you assess risk by telling you how much information is going into the creation of the EPD -whether the EPD estimate of future performance is based on lots of data or whether it really is just a guess at this point.

Accuracies do not tell us how variable an animal's offspring will be. Nor does it reflect the quality of the information used. If a breeder is using incorrect management group definitions, this will affect the quality of the EPD, but will not affect the accuracy.

The accuracy value has a range from 0 (very poor) to 99% (extremely accurate). 99% means the EPD is the almost exact correct measure of the bull's ability to produce offspring with the given trait, and zero means there is no information available for making such a prediction.

Generally, accuracy values of about 80% or higher are considered high accuracy, meaning the EPD is a pretty good predictor of performance, which is to say that there is little risk that the progeny performance of an animal with high accuracy will be very different from the prediction. Accuracy values between 60 and 80% are moderate and an accuracy value below 60% is considered low, and the likelihood of the outcome mirroring the EPD value is less.

Rick Bourdon of Colorado State University breaks up accuracy values this way, passing final judgment on the bull.

Low	< 40%	Unreliable, but still a guess
Med/Low	40 to 60%	Worth looking at, but risky
Med/High	60 to 80%	Quite trustworthy, make comparisons with confidence
High	> 80%	Good accuracy, compare with confidence

If an animal has low accuracy, it means data, maybe from its progeny, are not there to support the EPD. It also means that the chances of the EPD changing in the next sire summary are greater, because adding more data increases the ability of the EPD to predict performance and in turn boosts accuracy.

However, it doesn't mean that the bull is no good, only that you would want to see EPDs with a little more accuracy before passing final judgement on the bull. As more of the bull's daughters report more progeny, the predictive value of EPD will become more reliable and this is reflected in a higher accuracy value.